

What Is Claimed Is:

1. A planar sensor element for determining at least one gas component, comprising:

a layer structure including:

a heating element generating a heating power, and
a layer-shaped heating conductor embedded in the
heating element,

wherein the layer-shaped heating conductor is arranged in
a layer plane of the layer structure to obtain an at least
approximately homogeneous distribution of the heating power
over a cross-section of the layer structure.

2. The planar sensor element according to claim 1, wherein
the layer plane is centered with respect to the layer
structure.

3. The planar sensor element according to claim 1,
wherein, when the layer structure is unsintered, the
layer structure further includes:

at least two function layer-side foils, and
at least one cover foil-side foil having a
predetermined thickness, and

wherein a total thickness of the at least two function
layer-side foils is at least approximately equal to the
predetermined thickness.

4. The planar sensor element according to claim 3, wherein
the layer structure includes a further layer having a further
thickness, and wherein the total thickness includes the
further thickness.

5. The planar sensor element according to claim 1, wherein
the layer structure further includes a plurality of
electrically insulating layers, a first thickness of one of
the electrically insulating layers being approximately equal
to a second thickness of another one of the electrically
insulating layers, and further comprising:

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a heating conductor embedded in the electrically insulating layers, the electrically insulating layers being formed on both sides of the heating conductor.

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6. The planar sensor element according to claim 5, wherein the layer structure further includes a sealing frame surrounding the electrically insulating layers, the sealing frame having a frame thickness which is equal to a thickness of the electrically insulating layers.

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7. The planar sensor element according to claim 6, wherein the electrically insulating layers include two electrically insulating layers.

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